

at E, and the ashes are discharged in a thoroughly quenched condition into an ash hopper F. The trough under the water-sealed shoots may be of cast iron or of concrete, and in either case the bottom of the trough should be provided with loose cast-iron wearing plates for the chain to run on. A continuous flow of water is maintained in the trough in order to keep the temperature of the water low enough to prevent steaming. It has been found in practice that a relatively small water-supply is all that is required to keep the trough cool.

It will be appreciated that this type of plant offers many advantages, as the perfect water seal prevents the admission of air into the combustion chambers of the boilers, which always happens in other systems in which the ashes are discharged into the atmosphere.

The operating costs are reduced to a minimum, as the plant is entirely automatic and the removal of ash continuous. No fumes or dust are given off, and as all parts of the plant are slow moving, the wear is reduced to a minimum.

In fig. 25 the ashes are discharged into an overhead ash-receiving hopper from which they are emptied periodically into railway trucks. This arrangement, however, is not always necessary, and the arrangement shown in fig. 26 is sometimes used, in which the ash conveyor discharges direct into an ash dump, from which the ashes may be loaded into trucks or on to barges by a crane and grab.